

MATERIALS FOR SPLINTS.

Put up in Convenient Packages for the Field.

Perforated Zinc, in strips and sheets, with Shears for cutting and fitting the splints, may be obtained at-----

All the materials required for the preparation of the "Gypsum Splints" may also be obtained at the same place.

SUGGESTIONS TO THOSE WHO PREPARE THESE PROVISIONAL SPLINTS.

As the object sought is to afford suitable support to fractured limbs during transportation, it may be desirable to make the splints longer and stronger than would be necessary for patients in hospital. To add strength to the perforated zinc splint, the strips may be doubled, or a light strip of wood may be applied externally in the direction of the shaft of the bone. The cut edges of the zinc may be pressed back by applying the back of the shears against the margin of the metal when resting upon the angle of a board or table. Angles in the splints may be made by *cuts* or by *V's* in the margins. Fine oakum or old cloths may be used for padding.

The firmness of the Gypsum Splints may readily be increased by increasing the number of thicknesses of the saturated cloth.

THE MODE OF APPLYING THE GYPSUM SPLINTS.

The following plain directions have been suggested by a surgeon who has had ample experience in their use:

"The limb is first shaven or slightly oiled; a piece of old coarse washed muslin is next selected of a size so that when folded about four thicknesses it is wide enough to envelop more than half of the circumference of the limb. The solution of plaster is then to be prepared. Fine, well dried, white plaster had better be selected, and before using a small portion should be mixed with water in a spoon and allowed "to set," with a view of ascertaining the length of time requisite for that process. If it is over five minutes, a small quantity of common salt had better be dissolved in the water before adding the plaster. The more salt added, the sooner will the plaster "set." If delay be necessary, the addition of a few drops of carpenter's glue or mucilage will subserve that end. Equal parts of water and plaster are the best proportions. The plaster is sprinkled in the water and gradually mixed with it. The cloth, unfolded, is then immersed in the solution and well saturated; it is then to be quickly folded as before arranged and laid on a flat surface, such as a board or a table, and smoothed once or twice with the hand in order to remove any irregularities of its surface, and then, with the help of an assistant, applied to the posterior surface of the limb. The portion extending below the heel is turned up on the sole of the foot, and the sides folded over the dorsum and a fold made at the ankle on either side, and a roller bandage applied pretty firmly over all. The limb is then to be held in a proper position, (extension being made if necessary by the surgeon,) until the plaster becomes hard. The time required in preparing the cloth, mixing the plaster, and applying the casing to the limb, need not to take more than fifteen minutes. After the plaster is firm and the bandage removed, we will have a solid plaster of Paris case partially enveloping the limb, leaving a portion of its anterior surface exposed to view. If any swelling occurs evaporating lotions can be applied to the exposed surface, and we can always easily determine the relation of the fractured ends. If necessary an anterior splint made of the same material, can be applied, and then both bound together with adhesive plaster, and if desirable a roller bandage over all. If the anterior splint is not used, two or three strips of adhesive plaster, one inch wide, or bands of any kind, may be applied around the casing, and will serve to keep it firmly adjusted."

Ordinarily the gypsum and the water are mixed in equal proportions, but they may be varied to suit the manipulator. Very *light* and *porous* splint casts may be made by preparing the plaster paste, as follows:

Gypsum, 75 parts, by weight.

Water, 100 parts, "

Starch, 1½ to 2 parts, "

The starch to be boiled clear, in a small quantity of water. If the "setting" of the plaster is too slow, add a little salt. A small proportion of viscid starch tends to delay the "setting" of the plaster, and it may be used for that purpose instead of glue. After the strips of cloth are cut and all is ready, the application of the materials and the completion of the work need not occupy more than ten minutes. Fenestræ or windows for drainage or for observation may be provided beforehand, by cutting the proper apertures in the strips of cloth before immersing them in the plaster paste.

